



# ANNUAL REPORT

ON THE

# HEALTH

OF THE

BOROUGH OF CHESTERFIELD,

FOR

1898,

BY

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# Borough of Chesterfield.

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## Sanitary Committee :

*The Mayor,*

MR. COUNCILLOR DOUGLAS, J.P.

*Chairman,*

MR. ALDERMAN CLAYTON, J.P.

*Vice-Chairman,*

MR. ALDERMAN ROBINSON.

*Members,*

MR. ALDERMAN BOOTH, M.D., J.P.

„ WOODHEAD, J.P.

MR. COUNCILLOR HADFIELD,

„ LOCKE.

„ PARSONS,

„ RHODES,

„ SPOONER,

„ WRIGLEY.

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## Medical Officer of Health :

H. MEREDITH RICHARDS,

M.D. (Medicine & State Medicine), B.S. (Lond.).

## Sanitary Inspector :

CHAS. E. WOOD, Cert. San. Inst.

HEALTH DEPARTMENT,

SALTERGATE,

APRIL 5th, 1899.

Gentlemen,—

*I beg to present my third Annual Report on the Health of  
the Borough.*

*The delay in Printing my Report is due to the very large amount  
of time taken in preparing the part referring to Infant Mortality.*

*Your obedient servant,*

**H. MEREDITH RICHARDS.**

# 1898.

## Summary of Report.

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### BOROUGH OF CHESTERFIELD.

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Area : 1,219 acres. Situation, on coal measure clay, average of 300 feet above O.D.

Population (census) 1891, 22,009 ; estimated 1898, 24,934.

Number of Houses : 1891, 4,171 ; 1898, 4,939.

Rateable Value 1898, £88,167 ; Assessable Value, £81,932.

General District Rate : 4s. 1d. in the £ for Old Borough ; 3s. 7d. for Brampton ; 3s. 1d. for Newbold ; 2s. 1d. for Hasland.

Poor Rate (including School Board), 3s. 1½d. on Buildings, and 1s. 6¾d. Agricultural Land.

### Vital Statistics, 1898.

Birth Rate per 1,000, 35·3.

Crude Death Rate per 1,000, 24·7.

Corrected Death Rate per 1,000, 22·2.

Infantile Mortality (Deaths under 1 year per 1,000 Births), 228.

Death Rate per 1,000 from the seven principal Zymotic Diseases, 3·6.

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Isolation Hospital : A temporary hospital reserved for Small-Pox.

Water Supply :—

Source of Public Supply : The Linacre Reservoirs.

Any change in 1898 ? Additional supply from a boring.

Scavenging and Refuse Disposal : By Contractors at the Expense of this Authority.

Nuisances abated during 1898, 1,001.



# Report.



**The Population** at the 1891 census was 22,009. This number had, as ascertained by a School Board census, increased to 24,493 in 1897. Assuming that the rate of increase has since been maintained, this estimated population of 1898 is **24,934**. This estimate is probably still too low, but in default of absolute proof of this opinion all calculations are based on a population of 24,934.

The number of inhabited houses at the end of 1897 was 4,812. During the year 146 new houses have been certified as fit for occupation, and 19 have been closed or demolished, leaving 4,939 at the end of 1898.

The area of the Borough is 1,219 acres, with a **density of 20·5 per acre**.

**The Births** registered during 1891 amounted to 890 or 35·7 per 1,000 of the population.

Of these 441 were boys, 449 were girls, and 63 or 7 per cent. were illegitimate.

10 of the registered births (including one illegitimate birth), which took place at the Workhouse, should be assigned to other parts of the Chesterfield Union.

The true birth rate is, therefore, 35·3 per 1,000. The corrected illegitimate rate is 7 per 100 births.

**Deaths** registered during the year numbered 616. This is equal to a crude death rate of 24·7, or after deducting 77 deaths of non-residents, occurring at public institutions, to 21·6. On making the usual correction for “age and sex distribution” we have a **corrected death rate of 22 2 per 1,000** as compared with 17·6 for England and Wales.

The Infantile Death Rate (deaths under 1 year) was equivalent to 228 per 1,000 births.

Inquests were held in 35 instances, or 5·7 per cent. of all cases. The number of deaths uncertified by coroner or medical man amounted to 29, or 4·7 per cent.

The mortality of the different wards was as follows :—

	Death Rate per 1,000 at all ages.	Infantile Death Rate.
North Ward	21·5	260
South ,,	21·0	183
West ,,	23·3	250

I regret to call your attention to the fact that the death rate is even higher than in 1897.

This is almost entirely, if not wholly, ascribable to the heavy mortality obtaining among children under 5 years of age.

In England and Wales the infantile death rate for the years 1881 to 1890 was 142 per 1,000 births. If this had been the rate in Chesterfield we should have only had 125 deaths under 1 year instead of 201. Similarly the death rate for England and Wales of children under 5 years of age, for the same period was 56·8 per 1,000 living. Calculated on this basis there should not have been more than 180 deaths under 5 while as a matter of fact there was 272.

There is thus an excessive mortality of children under 1 year equal to 76 deaths, and an excessive mortality of children 1 to 5

years equal to 16 deaths. Added together these equal 92 deaths. If these deaths had not taken place the death rate would have been reduced to 18 per 1,000. I have, therefore, entered at some length into the question of infant mortality on page 12 of this Report.

Table III. gives the registered causes of deaths for the whole Borough.

**Zymotic Disease.**—Tables IVA. and IVB. show the number of cases of notifiable disease occurring in the Borough during the past and previous years and the number of deaths from the principal Zymotic diseases during the same period.

The so-called zymotic death rate (*i.e.*, the death rate from Small Pox, Scarlet Fever, Measles, Whooping Cough, Diarrhœa, Diphtheria, and “Fever” amounted to 3·6 per 1,000.

Ward.	Estimated Population.	Deaths from the principal zymotics.	Zymotic Death Rate.
North	9,175	33	3·6
South	8,220	18	2·2
West	7,260	40	5·5
		<hr/>	<hr/>
Borough ...	...	91	3·6

In calculating the zymotic death rate only those deaths actually ascribed to the above named diseases are included. There nevertheless is little doubt that the 20 deaths ascribed to enteritis and gastro-enteritis should properly be classified under diarrhœa. The affections so described are identical in causation and symptoms.

**Isolation Hospital.**—Slow but sure progress has been made in the direction of providing accommodation for the infectious sick.

The Borough has, on petition, been formed by the Derbyshire County Council into a hospital district under the Isolation Hospitals Act, 1893. This step was taken to obtain share in the grant in aid offered by the County Council towards the structural expenses of hospitals established in the county, and was rendered necessary by the fact that while County Councils can contribute towards the cost



of hospitals erected under the Isolation Hospitals Act, they have no power to make grants towards the cost of hospitals established under the Public Health Act. By the terms of the County Council's order the duty of providing a hospital is now vested in the Borough of Chesterfield Hospital Committee. This Committee consists of five members elected by the Corporation. Messrs. Alderman Clayton, Alderman Dr. Booth, Alderman Robinson, and Councillors Rhodes and Spooner are the first members. The Borough Hospital Committee has entered into an agreement with the North Derbyshire Hospital Committee, representing the surrounding districts, to erect a joint hospital of 30 beds at Penmore. Plans have been prepared and further progress will be made as soon as the County Council can raise the necessary loan.

**Disinfection.**—The number of articles disinfected was smaller than in 1897, but amounted to 1,640. This decrease was owing to the fact that infectious disease was less prevalent. Full particulars of the work done will be found in Table V. 119 houses were disinfected by the spraying apparatus or by sulphur.

**Schools.**—The arrangement made with the School Board for the notification of absentees suspected or alleged to be suffering infectious disease has continued in force.

Attention has thus been drawn to the following cases :—

Scarlet Fever	...	...	...	12
Measles	...	...	...	366
Whooping Cough	...	...	...	35
Chicken Pox	...	...	...	5
Enteric Fever	...	...	...	2
Mumps	...	...	...	5
Ringworm, &c.	...	...	...	32

These children are, as far as possible, visited on receipt of notification, and the parents advised as to preventing the spread of disease. We are in this way gradually persuading people to take reasonable precaution against these common diseases.



**Scarlet Fever** was less prevalent than in 1897. The individual cases were, however, more severe than in that year.

**Measles.**—Some 366 cases became known to me through the agency of the School Board, but only 18 deaths were due to this disease as compared with 35 deaths in 1896 when measles was last epidemic. How far this is due to the steps taken to educate public opinion it is impossible to say, but it is quite certain that the only practical way of dealing with measles is to convince people of two things, viz. :—

(1) That measles may be a very serious and fatal disease.

(2) That it is practically never fatal if a few elementary precautions are taken in the earlier stages of the illness.

**Diphtheria and Membranous Croup.**—Five cases were notified, and two deaths are ascribed to these diseases.

Twelve other cases of suspicious sore throat were also brought under my notice. I made a bacteriological examination in each instance, and found that none of them could be regarded as true diphtheria.

**Typhoid Fever.**—During the year forty-seven cases were notified, of which five ended fatally. Each one was carefully investigated, with the result that both milk and water could be exculpated from any share in the dissemination of the disease. In only four cases was there any evidence that shellfish had been eaten shortly before the onset of the illness.

The further experience gained in 1898 confirms me in the opinion expressed in my last report that endermic typhoid in Chesterfield is due to pollution and infection of soil in the neighbourhood of dwellings. This befoulment is mainly brought out by the execrable privy-midden system which finds such favour in the minds of the less enlightened members of the community.

The cases were distributed as follows :—

North Ward	...	...	...	18
South „	...	...	...	18
West „	...	...	...	11

At least five cases clearly illustrated the danger of the home-nursing of typhoid fever, seeing that the precautions taken were not effectual in preventing the spread of the diseases.

The following series also show the way in which typhoid hangs about infected yards and streets :—

1 Hall's row,	6 cases in '97
2 „	2 „ '97
1 „	1 „ '98
6 „	2 „ '98
16 Brown's yard,	1 case in '97
12 „	1 „ '97
20 „	1 „ '97
25 „	1 „ '98
17 „	1 „ '98
Elder yard,	1 case in '97
„	2 „ '98
14 Marsden place,	4 cases in '95
11 „	3 „ '95
17 „	1 „ '98
16 „	1 „ '98

**Diarrhœa**, including “enteritis” and “gastro-enteritis,” caused 66 deaths as compared with 82 in 1897. Fifty-three of these deaths were those of infants under 1 year of age, and are more fully referred to under Infantile Mortality.

The deaths were distributed as follows :—

North Ward	...	...	23
South „	...	...	14
West „	...	...	29

**Phthisis and other Tubercular Diseases** accounted for 30 deaths. Public opinion is at length being roused to the fact that these diseases are for the most part preventible. I am issuing a leaflet dealing with the question of consumption but meanwhile would again draw the attention of all concerned to the fact that the Sanitary Authority is prepared to disinfect after Phthisis. A similar offer was made in 1897, but in only one instance has been accepted. I would also suggest that the Veterinary Inspector be empowered to inspect all the cows in the Borough with the object of ascertaining whether any of them are suffering from Tubercular Disease of the udder. This Disease makes the milk from affected cows extraordinarily virulent, and is now scheduled under the Dairies and Cowshed Orders. It is to be regretted that the Local Government Board has not insisted on the routine employment of tuberculin as a diagnostic agent, as otherwise only advanced cases of consumption can be detected by the Veterinary Surgeon.

**Infantile Mortality** has for several years past been in excess of that recorded in the rest of England and Wales. Complete figures are not available before 1893, but the Infantile Death Rate in that and the following years is shown in the following table :

DEATH-RATE COMPARED WITH ENGLAND AND WALES AND  
WITH NEIGHBOURING TOWNS.

Year.	Chesterfield.	England & Wales.	Nottingham.	Sheffield.	Leicester.	Derby.
1893	... 222	... 159	... 172	... 193	... 220	... 156
1894	... 143	... 137	... 174	... 157	... 162	... 123
1895	... 167	... 161	... 189	... 195	... 203	... 161
1896	... 155	... 148	... 168	... 171	... 187	... 151
1897	... 220	... 156	... 202	... 197	... 205	... 168
1898	... 228	... 161	... 178	... 195	... 191	... 181
Average	189	154	181	185	195	157

It will be seen that our average mortality is very considerably above that of England and Wales but corresponds nearly to that prevalent in Nottingham and Sheffield. This is much what one would expect.

The Registrar General pointed out many years ago that "the rate is lowest in the purely agricultural and highest in the mining counties and those with textile industries. It is in the towns of these latter counties that the infantile mortality assumes the highest proportions." With regard to the manufacturing towns it may be pointed out that the death-rate in Lancashire towns is considerably higher than that found in this district, for instance, the Infantile Death Rate in Preston in 1897 was 262 per 1000 births, and 225 in 1898.

Little good, however, is attained by showing that we are no worse than our neighbours when it must be admitted that both depart very far from an ideal or even the moderately satisfactory condition of the healthy districts of England and Wales, wherein the Infantile Mortality averages less than 120 per 1000.

In order to have as many facts as possible whereon to base conclusions, I have taken the whole number of births and deaths under one year during the last six years. After deducting the deaths and births of non-residents occurring at the Workhouse and Hospital, it was found that there had been a total of 5001 births and 948 deaths under 1 year.

From these figures was constructed an INFANTILE LIFE TABLE for comparison with a similar table prepared by the Registrar General for three rural counties (Herts, Wilts and Dorset) conspicuous by their low rate of Infantile Mortality, and three selected towns (Preston, Leicester, and Blackburn) conspicuous by their high Infantile Mortality Rate. The results are tabulated side by side in the following table :—



## LIFE TABLE FOR INFANTS UNDER 1 YEAR OF AGE.

Age.	Of 100,000 born the number surviving at each age in			Deaths in each successive Interval of age		
	Three Rural	Three		Three Rural	Three	
Days.	Chesterfield.	Counties.	Towns.	Chesterfield.	Counties.	Towns
0	100,000	100,000	100,000	1,240	1,002	1,198
1	98,760	98,998	98,802	440	296	485
2	98,320	98,702	98,317	440	281	344
3	97,880	98,421	97,973	240	232	236
4	97,640	98,189	97,737	180	152	144
5	97,460	98,037	97,593	100	120	130
6	97,360	97,917	97,463	80	89	109
7	97,280	97,837	97,354	—	—	—
Weeks.						
0	100,000	100,000	100,000	2,720	2,163	2,646
1	97,280	97,837	97,354	760	473	773
2	96,520	97,364	96,581	1,120	462	832
3	95,400	96,902	95,749	780	331	646
4	94,800	96,571	95,103	—	—	—
Months.						
0	100,000	100,000	100,000	5,380	3,488	4,940
1	94,800	96,512	95,053	2,460	985	2,137
2	92,160	95,527	92,923	1,640	707	2,049
3	90,520	94,820	90,874	1,660	673	1,937
4	88,860	94,147	88,907	1,400	618	1,749
5	87,460	93,529	87,158	1,040	461	1,584
6	86,420	93,068	85,574	900	483	1,475
7	85,520	92,585	84,099	980	483	1,226
8	84,540	92,102	82,873	860	454	1,317
9	83,680	91,648	81,556	780	476	1,220
10	82,900	91,172	80,336	800	455	1,110
11	82,100	90,717	79,226	1,060	434	1,029
12	81,040	90,283	78,197	—	—	—

The figures for Chesterfield are based on the births and deaths taking place in the years 1893-98. The tables for the Three Rural Counties and the Three Towns are copied from the 54th annual Report of the Registrar General.

The deaths for the same period were next classified under causes, and the following table gives the result in a condensed form :

Causes.	Proportionate number for					
	Chesterfield		The Three Rural Counties.		The Three Towns.	
Premature Births	...	94	...	69	...	114
Atelectasis	...	13	...	3	...	7
Congenital Malformations		21	...	11	...	12
Whooping Cough	...	23	...	21	...	35
Measles	...	14	...	9	...	31
Diarrhœa & Enteritis	...	233 { 177 56	...	30 { 24 6	...	223 { 198 25
Syphilis	...	14	...	3	...	10
Dentition and other Diseases of Digestive Organs	...	40	...	23	...	40
Convulsions & other Diseases of Nervous System	...	91	...	69	...	189
Tubercular Diseases	...	33	...	24	...	61
Respiratory Diseases	...	167	...	105	...	185
Suffocation	...	7	...	6	...	12
Other Violence	...	6	...	3	..	3
Atrophy, Debility, and all Other Causes...	...	192	...	110	...	168
Total	...	948	...	486	...	1090

A comparison of the Life Tables shows us that Chesterfield infants share to no small degree the dangers which attend urban as distinguished from rural life. It will further be noticed that while the number of deaths occurring at each interval of the year is greater in the case of children born in Chesterfield than in the case of those born in the "Three Rural Counties," this difference is proportionately greater after the earlier weeks of life. The Registrar General pointed out that a similar statement holds good for the "Three Towns" as compared with the "Three Counties." It seems probable that this

depends on the fact that deaths occurring within the first few weeks of life depend more on fortuitous circumstances, and that the effect of insanitary surroundings takes a longer time to make itself evident.

What is perhaps still more striking, is, that of 100,000 children born, 7,840 would have died in Chesterfield during the first two months, while only 7,077 would have died in the "Three Towns," and 4,473 in the "Three Counties." It would seem, therefore, that Chesterfield infants are handicapped by inheriting constitutions of less than average robustness. Many of these very early deaths are due to prematurity, but reference to the table of certified causes of deaths shows that "prematurity" is itself hardly as common as in the "Three Towns." It may be that in Chesterfield, all infants who survive only a few minutes are registered, and properly registered as born alive. It is well-known that in many districts this is not done.

Perhaps, the most important lesson that we may learn from these tables is, how largely Diarrhœa and Enteritis bulk in the bills of mortality of Chesterfield, and of the "Three Towns." No less than 233 out of 948 infantile deaths in Chesterfield are ascribed to these diseases, as compared with 223 out of 1,090 in the "Three Towns," and 30 out of 486 in the "Three Counties."

I have repeatedly expressed the opinion, that the high infantile death-rate, and more especially that part which is assigned to Diarrhœa, is due to ignorance of the right method of feeding children, and to neglect of the elementary laws of health. For nearly two years, the Infant Life Protection Society has attempted to educate those entrusted with the care of infants. The Society has employed a lady whose business it is to visit all houses where births have taken place, and show the mothers how the children should be reared. Sufficient time has not yet elapsed for the scheme to have had perceptible effect on the death-rate, but we have been able to get together some valuable statistics which amply justify the policy of the society.

Some 372 infantile deaths were the object of detailed enquiry,



while similar particulars were ascertained in the case of 408 children who managed to survive the manifold dangers of the first year of life. The facts elicited are briefly as follows :—

**Overcrowding** did not appear to be especially prevalent where deaths had taken place with the possible exception of those houses where infants died within the first week of life. The numbers falling into those group are, however, too small to be absolutely reliable.

**Employment of Mothers**.—19 per cent. of the mothers of surviving children were more or less employed, as compared with 22 per cent. in the case of children dying under 1 year. The difference is not so marked as one would have expected, but this is doubtless due to the fact that local circumstances are such as enable mothers to live sufficiently near their work to return home at intervals to nurse their infants. Under such conditions, especially where the family is small, it is quite possible that the employment of mothers may be actually beneficial in as much as the extra money earned augments the resources of the family.

**Illegitimacy** was more than twice as high among those dying as among the survivors.

**Insurance**.—No connection could be traced between this and infant mortality. About 60 per cent. of infants between one week and six months of age are insured, and there was no excess of insurance among the non-surviving class.

**Condition of Premises**.—This was tabulated under two heads (1) as to structure ; (2) as to maintenance including cleanliness.

The structural condition of houses in which surviving children lived was good in 47 per cent. of the cases, but in only 35 per cent. of those dying. Defects were most marked in the cases where deaths had been due to Diarrhœal diseases.

Similarly, maintenance was distinctly good in the case of 65 per cent. of the survivors as contrasted with 53 per cent. of the dying. Houses where Diarrhœal deaths had occurred fell distinctly short of the standard reached by the houses of survivors.



**Feeding.**—It was in respect to methods of feeding that the difference between the two classes was most marked. Under six months of age, an infant, if practicable, should only be suckled. It is, however, occasionally impossible to adopt this plan, and even when possible there is a pernicious local custom of supplementing the natural food of the infant with the most extraordinary compounds. For instance, one infant that died at the age of two months was not only being fed at the breast, but was receiving also bread, chip potatoes, bloaters, “pobs,” and condensed milk.

Confining our attention to infants over one week and under six months, and dividing them into three groups, we find the following per centage differences :—

		Survivors, per cent.		Deaths from Diarrhœa. per cent.		Deaths from all other causes. per cent.
Breast Fed only	...	42	...	11	..	27
Breast and Food	...	42	...	22	...	37
Food only	... ..	16	...	67	...	36

In other words, while 42 per cent. of the surviving infants received only the food which nature intended for them, only 11 per cent. of the children dying from Diarrhœa, and 27 per cent. of those from other causes were equally fortunate.

Looking at it in another way, it is remarkable that while only 16 per cent. of the surviving children were entirely subjected to risks of the hand feeding, no less than 67 per cent. of those dying from Diarrhœa, and 36 per cent of those dying from other causes were so subjected.

Comment on such striking facts is unnecessary, but surely they go far to prove the statement that any attempt to bring up a

child by hand is a hazardous experiment, not to be lightly undertaken by those who have any regard for human life, and an experiment that can only be justified when more natural means are not available and when the most scrupulous care is taken in the preparation of the substituted food.

The Infant Life Protection Society is concerned in disseminating information on these points, and I would therefore ask the Committee to give them a substantial subsidy. Within the last few months the Corporation of Birmingham has undertaken similar work which is to be wholly paid for out of the rates.

**Water Supply.**—Thorough inspection of the mains and house services resulted in the discovery of innumerable leaks and of specimens of the plumbers' art, which are a disgrace to the trade concerned. The necessary repairs and renewals were at once effected, with the satisfactory result that the daily consumption through the Gas and Water Board's district has been reduced from over a million gallons per diem to less than three quarters of a million gallons. Some additional water has also been obtained from bore holes situated below the upper reservoir. No attempt has yet been made to filter the water, nor would it seem that the Board have yet decided what gathering ground they will resort to when the water they have been able to save is exhausted by a growing population and by greater municipal cleanliness.

The well off the Sheffield road, which supplied some 54 houses near Wharf lane, was found to be subject to pollution. The owners were notified of the fact, and substituted the public supply.

**Factory and Workshops Act.**—No new workshops have been placed on the register.

**Housing of the Working Classes.**—Eighteen houses were

closed in 1898 after notice. In no instance was it necessary to take a case into court. Sixty-seven houses were repaired after informal notice.

Forty-one notices were served for cases of overcrowding, and one hundred and nineteen for the repair of yard surfaces.

**Sewerage and Sewage Disposal.**—A new sewer has been laid at the far end of the Baslow road, and Abercrombie street sewer has been relaid.

Numerous samples of sewage have been examined during the year.

The two first filter beds which it was decided to construct are rapidly approaching completion, and we shall shortly be able to see how much sewage they can effectually deal with. It will then be possible to prepare a plan for the whole of the sewage, and to proceed with other sections of the work.

**Refuse Disposal.**—The scandalous way in which the contractors neglect their duty has engaged a large share of attention during the year, and has called for a special report, which is now receiving the consideration of the Council.

**Food Inspection.**—Twenty samples of milk were analysed. One was found to be adulterated, and a fine of £2 and costs inflicted on the delinquent.

Two samples of butter and two of coffee were examined, but proved to be genuine.

Five barrels of fish were condemned.

**Common Lodging Houses** have been visited during the year. A third conviction was obtained against one of the keepers, and his name was therefore erased from the register.

Four lodging houses have, for various reasons, been removed from the register.

**Dairies and Cowsheds** are being gradually improved. One cowshed was closed after notice to put it into a sanitary condition.

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# APPENDIX.

TABLE I.

## SUMMARY OF WORK DONE BY THE INSPECTOR OF NUISANCES DURING THE YEAR 1898.

Nature of Cases dealt with.	Ward.			Total.
	North.	South.	West.	
Total No. of Inspections of premises ...	789	916	667	2372
Inspection of dwelling-houses ... ..	291	346	266	903
Inspection and visits to premises where zymotic diseases have occurred .. ...	61	55	85	201
Inspection of premises where offensive trades are conducted ... ..	2	29	0	31
Inspection of workshops ... ..	15	47	13	75
„ slaughter-houses ... ..	15	108	18	141
„ cowsheds and dairies ... ..	10	12	51	73
„ bakehouses ... ..	18	17	10	45
„ common lodging-houses ... ..	9	38	11	58
Re-inspection of work in progress for abatement of nuisances ... ..	335	252	211	798
House drains tested with smoke ... ..	33	12	2	47
No. of houses disinfected after cases of Infectious Disease ... ..	39	34	46	119
No. of complaints from public investigated	32	45	13	90
No of notices issued for abate- (legal ment of nuisances ... .. (informal	41 183	44 178	27 148	112 509 } 621
Dirty houses inspected, cleansed, and limewashed ... ..	11	14	15	40
Houses overcrowded ... ..	12	13	16	41
Waste pipes connected to drains ... ..	31	11	21	63
Drains obstructed, &c. ... ..	45	58	32	135
Defective traps and drain inlets ... ..	127	66	42	235
Insanitary privies and ashpits ... ..	47	58	40	145
Insufficient closet accommodation	6	4	10	20
Insanitary privies converted into water closets ... ..	14	17	3	34
Water closets defective ... ..	26	11	9	46
Yard surfaces in bad repair ... ..	44	44	31	119
Eaves and downspouts defective ... ..	26	30	49	105
Urinals repaired and altered ... ..	5	8	6	19
Animals improperly kept ... ..	7	6	16	29
Offensive accumulations ... ..	6	8	4	18
Total No. of nuisances ... ..	407	348	294	1049
„ „ „ abated ... ..	401	335	265	1001

TABLE II.

Year.	England and Wales.	Derbyshire.	Urban Districts, Derbyshire.	Old Borough.	*Extended Borough.
1889	17·8	17·5	...	19·6	...
1890	19·5	18·2	...	24·02	...
1891	20·2	18·2	19·7	24·6	...
1892	19·0	19·1	19·5	24·5	...
1893	19·2	17·5	18·9	20·0	21·4
1894	16·6	15·4	16·4	15·0	15·6
1895	18·7	17·1	17·8	...	18·2
1896	17·1	16·6	16·9	...	20·0
1897	17·4	16·2	17·3	...	20·9
1898	17·6	...	...	...	21·6

\*Corrected for institutions only.

TABLE III.

## Deaths Registered from all Causes during the Year 1898.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded.

	AGES.							Total.
	0 to 1	1 to 5.	5 to 15	15 to 25.	25 to 65	65 and upwards		
1—Specific Febrile, or Zymotic Diseases.								
1—Miasmatic Diseases.								
Measles ... ..	3	15	...	...	...	...	18	
Scarlet Fever... ..	...	4	2	...	...	...	6	
Whooping Cough ... ..	9	5	...	...	...	...	14	
Diphtheria and Membranous Croup ... ..	...	2	...	...	...	...	2	
Enteric or Typhoid ... ..	...	...	...	3	2	...	5	
Influenza ... ..	1	...	...	...	7	2	10	
2—Diarrhoeal Diseases.								
Diarrhœa, Dysentery ... ..	40	2	...	...	1	3	46	
3—Venereal Diseases.								
Syphilis ... ..	2	...	...	...	1	...	3	
4—Septic Diseases.								
Pyæmia, Septicæmia ... ..	1	...	...	3	...	...	1	
Puerperal Fever ... ..	...	...	...	...	...	...	3	
III—Dietic Diseases.								
Chronic Alcoholism ... ..	...	...	...	...	4	1	5	
IV—Constitutional Diseases.								
Rickets... ..	1	1	...	...	...	...	2	
Rheumatic Fever, Rheumatism of the Heart ... ..	...	...	...	...	1	...	1	
Cancer, Malignant Disease... ..	...	...	...	...	16	8	24	
Tabes Mesenterica ... ..	5	5	...	...	...	...	10	
Tubercular Meningitis, Hydrocephalus ... ..	...	2	1	...	...	...	3	
Phthisis ... ..	...	1	...	8	20	1	30	
Other Forms of Tuberculosis, Scrofula ... ..	1	2	...	2	2	...	7	
Glycosuria, Diabetes Mellitus ... ..	...	...	...	...	3	...	3	
Anæmia ... ..	...	...	...	...	1	...	1	
V—Developmental Diseases.								
Premature Birth ... ..	12	...	...	...	...	...	12	
Atelectasis ... ..	1	...	...	...	...	...	1	
Congenital Malformations ... ..	3	1	...	...	...	...	4	
Old Age ... ..	...	...	...	...	...	34	36	
VI Local Diseases.								
1—DISEASES OF NERVOUS SYSTEM AND OF SPECIAL SENSES.								
...	30	6	1	2	18	11	68	
2—DISEASES OF CIRCULATORY SYSTEM.								
...	...	...	...	2	15	10	27	
3—DISEASES OF RESPIRATORY SYSTEM.								
Croup ... ..	1	1	...	...	...	...	2	
Bronchitis and Emphysema ... ..	28	12	...	1	13	14	68	
Pneumonia ... ..	7	4	2	1	13	1	28	
4—DISEASES OF DIGESTIVE SYSTEM.								
...	16	4	1	1	13	3	38	
5—DISEASES OF URINARY SYSTEM.								
...	...	...	...	1	3	1	5	
6—DISEASES OF REPRODUCTIVE SYSTEM.								
Parturition ... ..	...	...	...	1	...	...	1	
Female Organs ... ..	...	...	...	...	2	...	2	
VII—Deaths from Violence.								
...	3	3	2	1	4	...	13	
VIII—Deaths from Illdefined and not Specified Causes.								
...	37	1	...	...	1	1	40	
Total ... ..	201	71	9	26	142	90	539	





TABLE IV. (A.)

## Cases of Infectious Disease Notified during 1897.

DISEASE.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total 1897.
Small-Pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	17	12	13	11	7	8	10	11	9	3	16	4	121
Diphtheria and Membranous Croup	...	2	...	...	...	1	1	...	...	1	...	...	5
Enteric Fever ... ..	5	3	4	...	2	3	1	2	7	8	4	8	47
Puerperal Fever ... ..	2	...	...	...	...	...	...	1	2	...	...	...	5
Erysipelas ... ..	2	3	...	4	1	1	3	2	1	3	3	...	23
Total, 1898 ... ..	26	20	17	15	10	13	15	16	19	15	23	12	201

TABLE IV. (B.)

	1898.		1897.		1896.		1895.		1894.		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Small-Pox ... ..	...	...	...	...	...	...	...	...	10	...	Notifiable Diseases
Scarlet Fever ...	121	6	267	7	103	3	46	2	75	1	
Diphtheria and Mem- branous Croup ...	5	2	10	4	14	5	8	4	9	4	
Erysipelas ... ..	23	...	27	1	18	0	12	0	24	2	
Puerperal Fever ...	5	3	3	3	1	1	2	1	...	...	
Typhoid (Enteric) ...	47	5	59	10	9	0	28	4	9	1	
Diarrhoea ... ..	...	46	...	67	...	18	...	44	...	8	
Gastro-Enteritis ...	...	20	...	15	...	16	...	?	...	?	
Measles ... ..	...	18	...	0	...	35	...	10	...	1	
Whooping Cough ...	...	14	...	10	...	6	...	0	...	13	

TABLE V.

**Articles Disinfected by the Steam Disinfector.**

Mattresses ... ..	...	...	...	...	207
Beds ... ..	...	...	...	...	149
Bolsters or pillows	...	...	...	...	365
Bolster or pillow cases	...	...	...	...	101
Sheets ... ..	...	...	...	...	74
Blankets ... ..	...	...	...	...	224
Counterpanes ... ..	...	...	...	...	159
Curtains or bed-hangings	...	...	...	...	18
Carpets or mats ... ..	...	...	...	...	41
Articles of male clothing	...	...	...	...	59
Articles of female clothing	...	...	...	...	115
Miscellaneous ... ..	...	...	...	...	128
					1640

TABLE VI.

METEOROLOGICAL RECORD.

Rain Gauge 5 inches in Diameter, 1 foot above ground, 279 feet above sea level. Temperature taken in the shade and 4 feet from the ground.

MONTHS.		Temperature of Air during the Month.					Mean Temperature of air.	Rainfall.	
		Highest.	Lowest.	Mean of		Number of days on which rain fell.		Amount collected in inches.	
				All highest	All lowest.				
January ...	...	58	26	48.1	38.2	43.1	8	.60	
February...	...	57	20	46.1	33.1	39.6	14	1.59	
March ...	...	62	20	46.9	31.2	39	9	1.02	
April ...	...	68	23	55.9	37.2	46.5	12	2.45	
May ...	...	68	34	57.3	42.0	49.6	19	1.79	
June ...	...	75	32	66.5	47.1	56.8	12	1.17	
July ...	...	80	37	70.1	49.2	59.6	8	1.23	
August ...	...	84	39	71.6	51.4	61.5	10	2.66	
September	...	85	30	70.5	45.6	58.0	2	.41	
October ..	...	74	30	60.1	44.6	52.3	15	2.96	
November	...	62	21	50.1	36.9	43.5	15	2.82	
December	...	58	20	50.6	37.9	44.2	15	2.79	
Entire year ...		85	20	57.92	41.2	49.4	136	21.49	

Supplied by the courtesy of Mr. J. Simpson, Gas and Water Board.

TO THE MAYOR AND CORPORATION OF THE  
BOROUGH OF CHESTERFIELD.

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As Inspector under the Canal Boats Act I present my Annual Report for the year ending 31st December, 1898.

I have frequently visited such portion of the Chesterfield and Stockwith Canal that is in the Borough, but on no occasion have I seen any boat

The District Manager of the Canal states that no boat entered the Borough during the Year.

There are now 25 boats on the Registrar, and no application for registration was made during the Year.

CHARLES E. WOOD,

Canal Boats Inspector.